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BY THE U.S. GENERAL ACCOUNTING OFFICE  
**Report To The Honorable Albert Gore, Jr.,  
House Of Representatives**

**Solid Waste Disposal Practices:**  
**-Open Dumps Not Identified**  
**-States Face Funding Problems**

In 1976 the Resource Conservation and Recovery Act was passed to deal with, among other things, the Nation's open-dumping problem and the lack of a national solid waste management program. Some problems this law was intended to correct still exist because:

-The Environmental Protection Agency has been slow to develop guidelines and approve State solid waste management plans.

-EPA's May 1981 open-dump inventory does not provide an overview of the magnitude of the Nation's solid waste disposal problems.

EPA's proposed fiscal year 1982 budget includes no funding for the States' solid waste activities. Since they lack other sources of funds, States predict solid waste problems will persist.

GAO is recommending actions to develop a complete open-dump inventory and to encourage alternative funding sources for State solid waste management programs.

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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

COMMUNITY AND ECONOMIC  
DEVELOPMENT DIVISION

B-203891

The Honorable Albert Gore, Jr.  
House of Representatives

Dear Mr. Gore:

As requested in your July 3, 1980, letter and subsequent discussions with your office, this report discusses the implementation of subtitle D of the Solid Waste Disposal Act. We examined the status of the development and implementation of the State solid waste management plans, the conduct of the open-dump inventory, and the impact that reduced funding could have on State solid waste activities. The review focused on activities performed by the Environmental Protection Agency and 11 selected States.

At your request, we did not obtain agency comments, but the matters covered in the report were discussed with officials from the Environmental Protection Agency's Office of Solid Waste. Their views are included in the report where appropriate.

As arranged with your office, we are sending copies of this report to other congressional committees; the Director, Office of Management and Budget; and the Administrator, Environmental Protection Agency. Copies are also being sent to interested parties and will be available to others upon request.

Sincerely yours,

*Henry Eschwege*

Henry Eschwege  
Director

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GENERAL ACCOUNTING OFFICE REPORT      SOLID WASTE DISPOSAL PRACTICES:  
TO THE HONORABLE ALBERT GORE, JR.    --OPEN DUMPS NOT IDENTIFIED  
HOUSE OF REPRESENTATIVES            --STATES FACE FUNDING PROBLEMS

D I G E S T

Existing legislation authorizes a program of grants to States and territories to develop solid waste management plans for the recovery of energy and other resources from discarded materials, the safe disposal of discarded materials, and the management of hazardous wastes. The law also required the Environmental Protection Agency (EPA) to establish criteria for classifying all land disposal facilities as either environmentally acceptable or unacceptable and for participating States to evaluate facilities against the criteria and to report the results to EPA. EPA was to publish an inventory of all unacceptable facilities or "open dumps" identified according to the criteria.

At the request of Congressman Albert Gore, Jr., GAO reviewed the status of State solid waste management plans, the conduct of the open-dump inventory, and the impact of reduced funding on State solid waste activities.

Over \$47 million was awarded to States from October 1977 to March 1981 to develop State solid waste management plans and to conduct an open-dump inventory. Plan development, however, has been slow. No State plans have been approved by EPA as of June 1981. The open-dump inventory published by EPA in late May 1981 is incomplete and is not the management tool intended to apprise the Congress and the public of the overall magnitude of solid waste land disposal problems throughout the Nation.

Funding for State grants is authorized through fiscal year 1982, but EPA's proposed budget does not provide funding for fiscal year 1982 because EPA expects the States' programs to be self-reliant and self-supporting by then. The States believe that if additional Federal funding is not provided, their solid waste efforts, including implementing the State solid waste management plans and continuing the open-dump inventory, will be significantly curtailed.

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JULY 23, 1981

### STATE PLANS HAVE BEEN SLOW TO DEVELOP

As of June 1981 no State solid waste management plans had been approved or disapproved by EPA. However, 29 States have adopted and submitted such plans to EPA for approval and 18 others have submitted draft or partial draft plans to EPA. Of the remaining nine States, one--New Mexico--has decided it will not participate in the program. (See pp. 8 and 9.)

Development of State plans has been slow because (1) EPA was over 15 months late in publishing guidelines required for developing and implementing State plans and (2) some States have time-consuming plan development and approval processes. (See pp. 9 and 10.)

### OPEN-DUMP INVENTORY DOES NOT MEET THE INTENT OF LEGISLATION

Within 1 year after publication of regulations, the Administrator, EPA, was required to

"\* \* \*publish an inventory of all disposal facilities or sites in the United States which are open dumps within the meaning of this Act."

The EPA inventory published in late May 1981 fell far short in meeting the legislation's aim. It listed only 1,209 open dumps in the Nation. The State of Louisiana alone estimated that it had over 1,700 open dumps, although it reported only 41. GAO attributed the problems in compiling the inventory to: (1) EPA's endorsement of an annual installment approach to the inventory, rather than a complete one-time inventory and (2) varying State approaches to conducting the inventory resulting from a lack of overall EPA guidance. (See ch. 3.)

### NUMEROUS FACILITIES ARE OPEN DUMPS

GAO, accompanied in nearly every instance by State solid waste officials, visited 193 facilities in 11 States and found that 149 of the facilities did not comply with one or more of EPA's criteria for classification as a sanitary landfill and would have thus been classified as open dumps. Although 99 of the 193 facilities had not been evaluated previously by the States

for open-dump inventory purposes, State officials would have classified 76 of the 99 as open dumps at the time of GAO's visit. Of the remaining 94 facilities that were evaluated for open-dump inventory purposes, only 44 were classified by the States as open dumps. However, when GAO and State officials visited these same 94 facilities, 73 were classified by the State officials as open dumps since they did not comply with EPA's criteria for classification as a sanitary landfill. (See pp. 22 to 26.)

STATES PREDICT ADVERSE  
IMPACTS RESULTING FROM  
LOSS OF FEDERAL FUNDING

EPA's proposed fiscal year 1982 budget provides no funding because it has accelerated the phase-out of Federal funding that previously was planned to end in fiscal year 1984. As a result, State solid waste officials and State associations expect that the open-dump inventory effort will be curtailed or ended and other solid waste management activities will be reduced. Furthermore, they said that well-conceived programs will tend to disintegrate because the States cannot carry the increased financial burden at this time. (See pp. 34 to 36.)

ALTERNATIVE FUNDING  
SOURCES ARE NEEDED

The States included in GAO's review and two State associations have indicated through discussions and reports that they lack adequate, long-term financial support to effectively and efficiently operate State solid waste programs. EPA has encouraged the States to explore alternative funding sources, such as user charges, to finance State programs as Federal financial assistance was gradually being phased out. In an earlier report on hazardous waste, GAO endorsed the fee system concept as a workable funding alternative for program management. The current administration has also recommended various user charge systems to support other federally financed programs.

Alternative funding sources are needed by the States to assume overall responsibility for the planning and actual operation of State solid waste management programs. (See pp. 37 to 44.)

RECOMMENDATIONS TO THE  
ADMINISTRATOR, EPA

GAO recommends that the Administrator:

- Encourage the States to submit the names of all disposal facilities not meeting one or more of EPA's criteria for classifying disposal facilities. After receiving such data, the Administrator should publish an inventory of all known facilities which do not meet EPA's criteria for classifying disposal facilities. (See p. 27.)
- Provide all State solid waste management agencies with comprehensive reports on those States that the Administrator believes have developed alternative sources of funding to the point that State solid waste management programs are considered self-reliant and self-supporting. (See pp. 44 and 45.)

Officials from EPA's Office of Solid Waste stated that the report generally presents an accurate, well-supported description of the States' solid waste management planning efforts, the open-dump inventory process, and the funding issues. They did stress, however, that the program is voluntary for the States, and, as such, EPA has no legislative authority to require State actions. Because of the voluntary nature of the program, some States have taken very active roles in dealing with their solid waste disposal problems, whereas other States have limited their efforts. As a result of the phaseout of Federal funding in fiscal year 1981, the officials stated that the States are faced with the prospect of funding the program from general revenues or having no program.

The officials agreed with the general thrust of the GAO inventory recommendation. They believe that the voluntary nature of the program only allows EPA to encourage the States to submit the needed information, not require submission. GAO agrees and has changed the wording from require to encourage. The officials agreed with the second recommendation.

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**ABBREVIATIONS**

<b>EPA</b>	<b>Environmental Protection Agency</b>
<b>GAO</b>	<b>General Accounting Office</b>
<b>RCRA</b>	<b>Resource Conservation and Recovery Act of 1976</b>
<b>SWDA</b>	<b>Solid Waste Disposal Act (amended by RCRA)</b>

## CHAPTER 1

### INTRODUCTION

The Environmental Protection Agency (EPA) estimated that in 1976 residential, commercial, and industrial sources generated 130 million metric tons of municipal solid waste. By 1985, EPA projected the yearly total to increase to 180 million tons. This estimate did not include the millions of tons of industrial wastes, sewage sludges, junk automobiles, and construction and demolition wastes. If all wastes were considered, the total volume would be about 3 to 4 billion tons annually.

According to EPA there are nearly 20,000 municipal waste land disposal facilities. In addition to receiving the usual household wastes, the facilities may receive medical wastes, paints, pesticides, dead animals, metals, plastics, and liquid chemical wastes. Many facilities are located on land that is considered to have little or no value for other uses, such as marshes and sand and gravel pits, and it is such siting which poses the greatest potential for environmental damage--surface water and ground water contamination.

About 6,000 of the municipal waste land disposal facilities are "sanitary landfills," usually operated under State-issued permits. Sanitary landfilling as traditionally defined is a method of disposing of solid waste with only minimal damage to the environment and poses no hazard to public health or safety.

Solid waste is also disposed on land through

- surface impoundments (lagoons, pits, and ponds) for liquid wastes and
- landspreading of sewage, industrial, and other sludges.

Incineration and, to a lesser extent, various resource recovery techniques have been used to process waste; however, each of these processes results in a residue which must still be disposed of on the land.

### RESULTS OF IMPROPER DISPOSAL PRACTICES

Improper and inadequate solid waste disposal practices can result in a variety of public health and environmental problems, including air pollution resulting from the burning of solid waste, gas explosions, the breeding of rats and flies, odors, and litter. The contamination of both surface and ground water is one of the greatest concerns with improper solid waste disposal practices. Numerous instances of surface and ground water contamination from solid waste disposal facilities have been documented. For example, of 50 industrial waste facilities an EPA contractor

evaluated in 1977, 43 showed the migration of hazardous constituents into ground water.

Inadequate solid waste disposal practices can also destroy valuable recoverable resources and lost opportunities for energy development. According to EPA, although about 25 percent of the Nation's garbage could be recycled by segregating specific items such as newspapers and bottles at the point of discard, total materials recovered has never exceeded 7 percent. Further, although solid waste has significant energy potential, EPA has found that efforts to recover energy have been limited.

#### FEDERAL, STATE, AND LOCAL ROLES

Generally, States <sup>1/</sup> have regulated waste disposal by issuing permits for siting and operating land disposal facilities and setting operating standards. They also have overseen the development of waste disposal plans by county governments, usually with Federal financial assistance. Although most States have similar requirements, the enforcement authorities vary from State to State. Collecting and disposing of waste is usually the responsibility of local governments.

Several Federal laws have been enacted in recent years concerning the disposal of waste and the protection of water resources. Although EPA has primary responsibility for implementation, generally each act provides for a Federal-State partnership in achieving its objectives. These acts are: the Resource Conservation and Recovery Act (RCRA) of 1976 (Public Law 94-580), which amended the Solid Waste Disposal Act (SWDA), the Safe Drinking Water Act (Public Law 93-523), and the Clean Water Act of 1977 (Public Law 95-217).

The Resource Conservation and Recovery Act of 1976 directed EPA to issue, within 1 year of enactment, criteria for classifying all land disposal facilities as either environmentally acceptable or unacceptable. Within 1 year after issuing the criteria, an inventory was to be published of all unacceptable facilities ("open dumps") identified according to the criteria. Open dumping is prohibited except as covered by an acceptable schedule for compliance under an EPA-approved State plan. Such a schedule must include an enforceable sequence of actions leading to full compliance within 5 years from the date of publication of the criteria in September 1979. The State plans provide the framework for the State regulatory elements to become functional and effective.

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<sup>1/</sup>The term "State" as used in this report is defined as any of the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands.

Subtitle D of SWDA authorized EPA to undertake a program of technical and financial assistance to States for developing and implementing solid waste management plans for (1) recovering energy and other resources from discarded materials, (2) disposing of discarded materials safely, and (3) managing hazardous wastes. State solid waste management plans are required to, among other things, (1) contain requirements that all nonhazardous solid waste be used for resource recovery or be disposed of in a sanitary landfill or some other environmentally acceptable manner, (2) provide for closing or upgrading existing open dumps, (3) prohibit the establishment of new open dumps, and (4) provide for the establishment of such State regulatory powers as may be necessary to implement the plan. State participation in the subtitle D program is voluntary since EPA lacks the legislative authority to require participation. For example, one State--New Mexico--has elected not to participate in the program.

Federal financial assistance to States for solid waste programs in fiscal years 1975 through 1977 totaled about \$3 million each. From October 1977 to March 1981, EPA awarded grants of \$47.8 million to assist State solid waste programs under RCRA. Although RCRA authorized \$20 million for grants in fiscal year 1982 for developing and implementing State solid waste management plans, EPA has not requested that such funds be appropriated. RCRA also authorized additional funding for other solid waste facilities, such as resource recovery programs, and authorized the EPA Administrator to provide technical assistance to State and local governments for developing and implementing State plans. However, RCRA does not authorize Federal assistance for State solid waste disposal activities beyond fiscal year 1982.

#### OBJECTIVE, SCOPE, AND METHODOLOGY

In a July 3, 1980, letter, Congressman Albert Gore, Jr., asked us to examine certain aspects regarding the implementation of subtitle D of the Solid Waste Disposal Act. Specifically, he requested that we:

- Evaluate the progress of the implementation of subtitle D.
- Determine what effect EPA's policy of phasing out subtitle D moneys will have on the State's ability to meet the mandate of subtitle D. Will subtitle C programs be affected also?
- Determine if the States are developing hazardous waste management plans--specifically identifying who is responsible for managing the provisions for waste treatment, storage, and disposal facilities.
- Determine what effect reduced subtitle D funding will have on State resource reuse and recovery programs.
- Estimate when the open-dump inventory will be completed.

To accomplish these overall objectives, our review focused on the status of State solid waste management plans, the conduct of the open-dump inventory, and the impact that reduced funding could have on State solid waste activities. We also visited 193 solid waste disposal facilities to gain a broad understanding of the open-dump problem facing the Nation.

In reviewing the status of the States' solid waste management plans, we determined, through talks with EPA headquarters and regional and State officials responsible for solid waste programs, which States had submitted plans and those that had not, why State plans had not been submitted, and which plans had been adopted by the States.

We reviewed the status of the open-dump inventory by determining, through talks with EPA and State officials, the number of solid waste disposal facilities in the States we visited, the number of facilities evaluated for open-dump inventory purposes, and the number of facilities the States classified as unacceptable (open dumps) or acceptable (sanitary landfills). In addition, we reviewed EPA guidance, training, and technical assistance provided to the States and the State procedures and philosophy for conducting the inventory.

We determined the amount of Federal grants awarded under subtitle D to the States, how such funds were supposed to be used based on EPA-approved State work programs, and interviewed State officials concerning the effect of reduced funding on future State solid waste activities. However, we did not attempt to determine specifically how the States actually spent subtitle D grant funds since it was not an objective of this review.

We visited 4 of EPA's 10 regional offices: Region III (Philadelphia, Pennsylvania), Region V (Chicago, Illinois), Region VI (Dallas, Texas), and Region IX (San Francisco, California). These offices were selected to provide a wide geographic distribution throughout the United States.

Within the four EPA regions, we selected 11 States for our detailed work.

- (1) Region III - Pennsylvania and Delaware
- (2) Region V - Michigan and Minnesota
- (3) Region VI - Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
- (4) Region IX - California and Nevada

The selection was based on various factors, including population; geography; and climatic, geological, and hydrological conditions. Further, New Mexico was included because it is the only State

not participating in the subtitle D program. The selection of these particular States was not based on any statistical sampling.

We discussed solid waste activities with State officials, including the directors of solid waste management; budget, planning, and programing officials; geologists; and inspectors. The subjects discussed ranged from the status of the State's solid waste management plan to how many facilities in the State are classified as open dumps. We also discussed what the States believe will occur when subtitle D funding is stopped.

Various documents were obtained and files reviewed in each State we visited. For example, we were given copies of the most current State solid waste management plans for 9 of the 11 States (California was still developing its plan, and New Mexico was not participating in the program). We were also given copies of the State rules and regulations governing solid waste disposal activities. We also reviewed disposal facility files maintained by each State. These files contained numerous documents, including citizen complaints, State inspection reports, engineering reports, and maps of the disposal facility area.

We visited 193 solid waste disposal facilities in the 11 States. During these visits, we observed the operations and, where possible, discussed the disposal operation with either facility owners or employees. For 173 of the 193 visits, we were accompanied by State solid waste officials who pointed out obvious violations of the open-dump criteria. The remaining 20 facilities were visited without State officials. However, for these 20 facilities, we did discuss each facility with responsible State officials and asked them to point out apparent violations of the criteria.

We did not use statistical sampling to select the 193 solid waste disposal facilities. The facilities we visited were selected by State officials based on our request for a representative sample of their typical solid waste disposal facilities. We visited facilities that had been evaluated for the open-dump inventory and facilities that had not been evaluated. We also visited facilities serving major metropolitan areas and remote areas of the country. For example, we visited 44 facilities that were classified by the States as open dumps and were reported as such on the May 29, 1981, open-dump inventory; we visited large facilities serving major metropolitan areas, such as Dallas, Texas, and Los Angeles, California; we visited small facilities serving remote areas of Louisiana, Arkansas, and Nevada; we visited 36 facilities that were evaluated for open-dump inventory purposes but were not classified as open dumps; and we also visited additional facilities that were not evaluated for open-dump inventory purposes to determine whether they appeared to present open-dump problems.

We did not review or evaluate State solid waste activities, such as enforcement. We only reviewed those activities involving the development of State solid waste management plans and the open-dump inventory. Although a comprehensive evaluation of individual State solid waste management plans for compliance with RCRA or EPA requirements was not a specific objective of our review, we did obtain copies of the nine available State solid waste management plans. In examining these State plans, we did note instances where the plans were in conflict with certain requirements.

As Congressman Gore requested, we did not obtain written agency comments on the draft report. We did, however, discuss the matters contained in the report with State and EPA regional and headquarters officials responsible for solid waste programs. Their comments have been incorporated, where appropriate, in the final report.

## CHAPTER 2

### DEVELOPMENT OF STATE SOLID WASTE

#### MANAGEMENT PLANS HAS BEEN SLOW

As of June 1981, EPA had not approved any State solid waste management plans. When RCRA was enacted in October 1976, it was anticipated that guidelines for developing and implementing such plans would be promulgated by EPA within 18 months and that EPA would have 6 months to approve or disapprove plans once they were submitted by the States. EPA is now projecting that only half of the States will complete this process by the end of 1981--over 5 years after RCRA's passage.

State plan development has been slow because EPA was over 15 months late in publishing guidelines required by RCRA, and some State plan development and approval processes have been time consuming, resulting in nearly half of the States submitting only draft plans, incomplete plans, or no plans.

Although the development of State plans has been slow, the nine State plans we examined generally address the criteria mandated by RCRA and established by EPA. We did find, however, that two of the nine State plans did not meet the criteria for managing hazardous wastes and one plan did not prohibit open burning.

#### STATE PLAN TIME FRAMES AND REQUIREMENTS

The State solid waste management plan is the organizing mechanism in subtitle D which ties the goals and requirements of RCRA to State priorities and programs. The States, through their plans, are to identify a general strategy for

- protecting public health and the environment from adverse effects associated with solid waste disposal,
- encouraging resource recovery and conservation, and
- providing adequate disposal capacity in the State.

Section 4002(b) of SWDA required the Administrator, EPA, to promulgate guidelines for developing and implementing State solid waste management plans not later than 18 months after the enactment of RCRA in October 1976. EPA promulgated the guidelines on July 31, 1979--over 15 months late. The guidelines provided that the State plan must be submitted for EPA approval within 18 months. Within 6 months after the State plan has been submitted for approval, the Administrator must approve or disapprove the plan. Had EPA not been late in promulgating the guidelines, State plans could have been approved or disapproved by April 1980.



### PLAN DEVELOPMENT HAS BEEN SLOW

In March 1981, EPA's State Program Branch, Office of Solid Waste, conducted a telephone survey of EPA's 10 regional offices to determine the status of the States' solid waste management plans. The survey, which was completed on March 26, showed that no State plans had been approved or disapproved by EPA, although 27 States had adopted and submitted State plans for EPA approval, 17 had submitted draft or partial draft plans, and 12 had not submitted plans. Of the 11 States included in our review, 6 had adopted and submitted State plans, 4 were in the process of developing their plans, and 1 will not submit a plan.

EPA's State Program Branch updated the survey information on June 15, 1981. At that time no State plans had been approved or disapproved by EPA, although 29 States had adopted and submitted State plans for EPA approval, 18 had submitted draft plans, and 9 had submitted either no plans or a partial, incomplete draft plan.

The table below shows the chronology in the development and approval of State solid waste management plans.

<u>Action</u>	<u>Date of action</u>	<u>Number of months since enactment of RCRA</u>
RCRA enacted	Oct. 21, 1976	-
EPA published State plan guidelines	July 31, 1979	33
State plans required to be submitted to EPA	<u>a</u> /Jan. 31, 1981	51
State plans approved or disapproved by EPA	<u>b</u> /July 31, 1981	57

a/As of June 15, 1981, only 29 State-adopted plans had been submitted to EPA.

b/As of June 15, 1981, no State plans had been approved by EPA.

Of the 11 States included in our review, 7 will not meet this schedule if EPA takes 6 months for its approval process. For example, the Michigan- and Minnesota-adopted solid waste management plans were received by EPA Region V in early February 1981. If it takes 6 months for EPA's approval process, these plans will not be approved before August 1981. The Nevada plan will take even longer. According to the Program Director of Waste Management, Nevada Department of Conservation and Natural Resources, Nevada's solid waste management plan will be submitted to EPA in September 1981. Allowing the 6 months provided for EPA review,

the Nevada State plan could be either approved or disapproved as late as March 1982--almost 5-1/2 years since RCRA was enacted.

On July 1, 1981, EPA's Director, State Programs and Resource Recovery Division, Office of Solid Waste, told us that it will still be quite some time before all State plans are approved or disapproved by EPA. He estimated that EPA may be able to approve 25 State plans over the next 6 months. He is uncertain on the timing of the remaining plans because of the elimination of subtitle D resources beginning in fiscal year 1982.

#### EPA actions slowed plan development

EPA did not publish the Guidelines for Development and Implementation of State Solid Waste Management Plans until July 31, 1979, over 15 months after the date mandated by RCRA. According to the Chief, State Program Branch, in EPA's Office of Solid Waste, reasons for the delayed publication of State plan guidance included

- staffing constraints and turnover when the guidelines were being drafted;
- redrafting of the guidelines was required;
- obtaining, organizing, and analyzing public comments was time consuming; and
- writing final guidelines that would satisfy all parties was a difficult task.

Furthermore, EPA provided the States with limited technical assistance, as provided for under section 4008(d) of SWDA, concerning development and implementation of State solid waste management plans beyond the guidance it published in the Federal Register. In the EPA regions we reviewed, Regions III and VI provided no specific training to State officials concerning State solid waste management plans, although project officers were available to answer questions raised by State personnel. Region V did conduct a 2-day training session on the State plan, and in a 3-day training session on all subtitle D activities, 1 hour was allowed for a State plan presentation. In Region IX the only specific guidance provided concerning State plans was a Region IX State Solid Waste Management Plan Policy statement which basically

- referred the reader to the Guidelines for Development and Implementation of State Solid Waste Management Plans as published in the Federal Register,
- summarized EPA's review process and the due dates for State plans, and
- stated that Region IX will not issue any periodic guidance concerning State plans.

Although the EPA regions appeared to provide limited technical assistance to the States, the States included in our review did not cite the lack of EPA assistance as adversely affecting the development of their State plans. State officials, however, did express some concerns about the process. For example, according to the Supervisor, Solid Waste Branch, Delaware Department of Natural Resources and Environmental Control, EPA provided almost no technical assistance concerning State solid waste management plans. He said Delaware was simply told to follow the State plan guidelines as published in the Federal Register. He added that the Team Leader, Hazardous Materials Section, Region III, told him to concern himself first with other aspects of RCRA before putting a lot of time into subtitle D activities.

The Chief, State Planning Section, California Solid Waste Management Board, said that EPA regional guidance for the State plan consisted of a 2-day meeting in San Francisco to discuss the draft guidelines for developing and implementing State solid waste management plans. In January 1981, this same California official said that it had been 7 months since he had last been contacted by the EPA project officer.

According to a State Planner in the Solid Waste Section, Nevada Department of Conservation and Natural Resources, the only assistance EPA Region IX provided concerning the State plan was the Region IX policy paper previously discussed.

Neither Delaware, California, nor Nevada have submitted final State plans to EPA. Nevada estimated that it will not submit a State plan until September 1981, while California and Delaware had expected to submit their plans in May 1981.

#### State actions may delay plan approval

State actions necessary to meet RCRA's requirements create delays in the State plan approval process. One of the States we reviewed in Region VI--Arkansas--must make legislative changes to bring its State law into agreement with RCRA's requirements. Region VI will not approve State plans which lack the basic legislative authority required to implement the provisions of RCRA. For example, one of RCRA's minimum requirements for approval of the State plan is

"\* \* \* that no local government within the State shall be prohibited under State or local law from entering into long-term contracts for the supply of solid waste to resource recovery facilities."

To meet this requirement, Arkansas will have to amend its constitution. Since the Arkansas Legislature meets every other year and will next convene in January 1983, the Arkansas State plan apparently will not be adopted for another 2 years, and then, only if the State Legislature approves the necessary amendment in 1983.

Plan approval process given  
increased priority in May 1981

EPA's proposed fiscal year 1982 budget includes no Federal financial assistance to support State solid waste activities. The impact of such funding reduction is discussed in more detail in chapter 4 of this report.

As a result of the phaseout of Federal funding, EPA, through a May 18, 1981, memorandum on guidance for using remaining fiscal year 1981 RCRA subtitle D resources from the Acting Deputy Assistant Administrator for Solid Waste to the EPA regional administrators, has decided that

"The highest priority use of the remaining FY 81 funds and personnel should be the review and approval of State plans. As you know, authority to approve or disapprove State plans has been delegated to the Regional Administrators. To assist with plan reviews, guidance prepared by a Regional-Headquarters team is attached."

The memorandum also provided that

"Because no Subtitle D State grant funds will be available for FY 82, the FY 82 annual RCRA Guidance will not address Subtitle D. Limited Headquarters personnel will remain available to assist your inventory and State plan review efforts through FY 81. This limited assistance will include reviewing and commenting on draft and adopted State plans at the request of the Regional Offices."

On July 1, 1981, officials from EPA's Office of Solid Waste, including the Acting Deputy Assistant Administrator, told us that even though the plan approval process has been given increased priority in the subtitle D program, it will still receive a low priority when competing with other solid waste programs, for example, the subtitle C program on hazardous wastes. They added that this situation applies to both EPA headquarters and regional office activities.

SOME STATE PLANS DO NOT  
MEET EPA CRITERIA

According to EPA's Guidelines for Development and Implementation of State Solid Waste Management Plans, the State plans must comply with certain requirements. Two of those requirements are

- identifying the hazardous waste management responsibilities in the State and
- prohibiting open burning.

In examining the nine State plans included in our review, we noted three plans were conflicting with these requirements. The Michigan and Nevada draft plans do not meet the hazardous waste management requirement, and solid waste regulations as referred to in the Texas solid waste management plan are conflicting with the requirement to prohibit open burning.

The preamble to EPA's Guidelines for Development and Implementation of State Solid Waste Management Plans states that

"\* \* \*the State plan is to describe how hazardous wastes will be managed in the State, including identification of responsibilities for that management and provision of necessary hazardous waste treatment, storage, and disposal facilities."

The Michigan and Nevada plans do not identify these hazardous waste management responsibilities.

The Supervisor, Waste Management Planning Section, Michigan Department of Natural Resources, said that responsibility for hazardous waste has not been completely defined. He said that Michigan's Hazardous Waste Management Act of 1980 provided for a hazardous waste management planning committee to prepare a State hazardous waste management plan by January 1, 1982. The planning committee, however, has only begun to formulate a hazardous waste management plan.

According to the Director of Waste Management, Nevada Department of Conservation and Natural Resources, the department does not have the legislative authority to conduct a hazardous waste management program. However, the State is performing a feasibility study to obtain an assessment of the hazardous waste problem, including the number of hazardous waste sites and generators. The hazardous waste program in Nevada is currently being managed by EPA.

Solid waste regulations referred to in the Texas State plan provide that the Texas Air Control Board may permit open burning at a solid waste disposal facility, but open burning generally is not allowed under RCRA's minimum requirements for approval of the State solid waste management plan. According to officials in several EPA regional offices, including Region VI, if a State agency must change its rules or regulations to conform with RCRA requirements, EPA will approve the State's plan if it contains a schedule for bringing these rules and regulations into conformity with RCRA requirements.

Under the air criterion in the Criteria for Classification of Solid Waste Disposal Facilities and Practices, a facility which engages in open burning will be classified as an open dump. This does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, diseased trees, debris from

emergency clean-up operations, and ordinance. To meet RCRA requirements of prohibiting the establishment of new open dumps and providing for the closing or upgrading of all existing open dumps, a State plan must not allow open burning at solid waste disposal facilities except as explained above. The Texas Municipal Solid Waste Management Regulations provide that "open burning of solid waste is under the jurisdiction of the Texas Air Control Board and must have specific approval of that Board." According to a Project Engineer for the Division of Solid Waste Management, Texas Department of Health, approximately 42 facilities in the State have permission from the Control Board to practice open burning on a regular basis contrary to EPA criteria. The Texas Solid Waste Management Plan contains recommendations to "amend state regulations to conform with federal open dump inventory criteria, including 'open burning' criteria" during 1981.

### CONCLUSIONS

State solid waste management plan development has fallen behind the schedule initially established by RCRA and EPA. State plans could have been adopted by the States and approved by EPA as early as April 1980. As of June 1981 no State plans had been approved or disapproved and only half of the States had adopted and submitted their plans to EPA. One State we reviewed will not even submit its plan to EPA until September 1981.

In May 1981 EPA, as a result of the phaseout of Federal funding for subtitle D activities, established that the review and approval of State plans would be the highest priority for using the remaining fiscal year 1981 funds and personnel. Although giving increased priority to the plan approval process, EPA is still projecting that only half of the States will complete the process by the end of calendar year 1981.

Development of State solid waste management plans has been slow because EPA published guidance for developing and implementing State plans over 15 months after the date established by RCRA. Nearly half of the States have yet to submit adopted State plans to EPA for approval. Also, State plans which require legislative action will not be approved by EPA until such legislative action is taken by the State. Some State legislatures meet only every 2 years, which may further delay approval of State solid waste management plans.

Three of the State plans we examined do not meet minimum RCRA requirements for plan approval--identifying hazardous waste management responsibilities and prohibiting open burning.

**OFFICE OF SOLID WASTE**  
**COMMENTS AND OUR EVALUATION**

Officials from EPA's Office of Solid Waste, including the Acting Deputy Assistant Administrator and the Director, State Programs and Resource Recovery Division, stated that EPA's delayed publication of the State plan guidelines has contributed to the untimeliness of the plan approval process. They stressed, however, that although the States have had nearly 2 years since the guidelines were published on July 31, 1979, to submit State adopted plans to EPA for approval, some States still have not submitted their plans. Because the subtitle D program is voluntary, EPA has no legislative authority to require the States to submit plans within established time frames. The officials added that they will continue to work with States to encourage the submission of State plans to EPA for approval. The officials further stated that EPA resources to do this are limited, however.

### CHAPTER 3

#### THE OPEN-DUMP INVENTORY IS INCOMPLETE

The open-dump inventory published by EPA in the May 29, 1981, Federal Register is incomplete and will not fulfill the purposes for which it was intended. The published inventory does not provide the Congress and the public with an overview of the magnitude of solid waste disposal problems in the Nation and does not provide the States the necessary information for determining the highest priority facilities for closing or upgrading.

EPA published criteria for classifying facilities as open dumps, but the guidance also provided that the State plan shall provide for "an orderly time-phasing of the disposal facility classifications." EPA projected that because of the large number of facilities to be evaluated and the effort involved in the evaluations, it would be some time before the States could evaluate all facilities. The States have used differing procedures and approaches for conducting the open-dump inventory and have listed about 1,200 open dumps. The States, however, are aware of thousands of other open dumps.

Although subtitle D funding is being phased out, we believe a markedly improved inventory of open dumps, as intended by RCRA, can be developed based on information currently available to the States.

#### WHAT WAS EXPECTED FROM THE OPEN-DUMP INVENTORY?

RCRA requires that the Administrator, EPA, publish an inventory of open dumps within 1 year after promulgation of regulations under section 4004 of SWDA. The regulations were to contain criteria for determining which disposal facilities shall be classified as acceptable (sanitary landfills) or unacceptable (open dumps). For purposes of the inventory, the act defined an open dump as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated by section 4004 of the act. The act further specified that as a minimum, the criteria would provide that a facility could be classified as a sanitary landfill, and not as an open dump, only if there were no reasonable probability of adverse effects on health or the environment from disposing of solid waste at such a facility.

EPA published the criteria for classifying solid waste disposal facilities on September 13, 1979--almost 2 years after the date required in the act. The criteria was originally published in proposed form on February 6, 1978. The 19 months between publication of the proposed and final criteria was spent by EPA in performing several functions. For example, according to the preamble of the criteria published on September 13, 1979, EPA held 5 public hearings and 11 public meetings to discuss the



proposed criteria and received a substantial number of written comments that had to be analyzed and considered in establishing the final criteria. In addition, the guidance manual for State evaluators to use in classifying solid waste disposal facilities was not published by EPA until March 1980. The manual was made available to the States in November 1979 and EPA did provide training to all States on how to use it.

The classification standards against which the disposal facilities must be evaluated include the following 11 criteria elements:

- (1) Air--the facility or practice generally shall not engage in open burning of residential, commercial, institutional, or industrial solid waste.
- (2) Safety--explosive gases--methane gas must be prevented from migrating beyond the site property boundary and accumulating in facility structures.
- (3) Safety--fires--the facility or practice shall not pose a hazard to the safety of persons or property from fires.
- (4) Safety--bird hazards to aircraft--facilities or practices which dispose of putrescible waste within 10,000 feet of a public use airport runway used by turbojet aircraft or within 5,000 feet of a runway used by piston-type aircraft shall not pose a bird hazard to aircraft.
- (5) Safety--access--the facility or practice shall not allow uncontrolled public access so as to expose the public to potential health and safety hazards at the disposal facility.
- (6) Surface water--the facility or practice shall not cause a discharge of pollutants into waters of the United States that is in violation of the requirements of section 402 of the Clean Water Act, as amended, or cause a discharge of dredged material or fill materials to waters of the United States in violation of section 404 of the Clean Water Act, as amended.
- (7) Ground water--the facility or practice shall not contaminate an underground drinking water source beyond the boundary of the solid waste disposal activity.
- (8) Endangered and threatened species--the facility or practice shall not cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife, nor result in destroying or adversely modifying of the critical habitat of endangered or threatened species.

- (9) Disease-vectors--the onsite population of rodents, flies, and mosquitoes must be minimized through the periodic application of cover material or other techniques to protect public health. Disease-Sewage sludge and septic tank pumpings--requires treatment to significantly reduce pathogens, restricting access to the site, controlling grazing of certain animals on the site, and preventing land use for certain crops for specified periods.
- (10) Application to land used for the production of food chain crops--restricts method and rate of application and marketing of crops where solid waste is applied to land used for the production of food chain crops. This criterion applies primarily to cadmium and polychlorinated biphenyls.
- (11) Flood plains--facilities or practices in flood plains shall not restrict the flow of the base flood, reduce the temporary water storage capacity of the flood plain, or result in washout of solid waste so as to pose a hazard to human life, wildlife, or land or water resources.

Also, according to section 4003 of SWDA, the State plan must provide for closing or upgrading all existing open dumps within the State. To aid the States in meeting this requirement, EPA provided the States about \$8.4 million during fiscal year 1980 to identify all open dumps so that they could plan for either closing or upgrading within a reasonable time.

The act also requires:

"\* \* \*not later than one year after promulgation of regulations under section 4004, the Administrator, with the cooperation of the Bureau of the Census shall publish an inventory of all disposal facilities or sites in the United States which are open dumps within the meaning of this Act."

The publication of this inventory, according to EPA's planning guidelines, was intended to inform the Congress and the public of the pervasiveness of the open-dumping problem. The inventory was also intended to provide an agenda for State action in correcting problem facilities which must be addressed by the State solid waste management plans.

#### STATE INVENTORY APPROACHES VARIED GREATLY

RCRA required that the Administrator, with the cooperation of the Bureau of the Census "\* \* \*shall publish an inventory of all disposal facilities or sites in the United States which are open dumps within the meaning of this Act." EPA's planning guidelines,

however, stated that the State plan shall provide for an orderly time-phasing of the disposal facility classifications. The guidelines further provided that the time-phasing was to be based upon

- the potential health and environmental impact of the facility,
- the availability of State regulatory powers, and
- the availability of Federal and State resources for this purpose.

EPA's rationale for time-phasing the inventory was that a large number of facilities needed to be evaluated and the effort involved would likely be technically complex, costly, and time consuming. As a result EPA believed that it would be some time before the States could evaluate all facilities. EPA also recognized that time-phasing would likely vary among the States and that they would be identifying open dumps at different rates and through various approaches. EPA expects to update the inventory annually.

Some States evaluated all disposal facilities in their State while others evaluated only a few facilities. For example, of the 11 States we visited, Louisiana evaluated 1,751 facilities while Delaware evaluated only 2. The following illustrates the different approaches taken by the States included in our review:

Arkansas--The Arkansas Department of Pollution Control and Ecology focused on unpermitted facilities with a history of operational problems, citizen complaints, and enforcement actions. Of the 314 disposal facilities, only 31 were evaluated and all were classified as open dumps.

California--The California State Solid Waste Management Board evaluated 159 of the estimated 600 to 700 municipal and industrial waste disposal facilities. Of the facilities evaluated, 30 were classified as open dumps and 40 were classified as indeterminate. California anticipates that most of the municipal facilities and a few of the industrial facilities will eventually be evaluated.

Delaware--Although Delaware only has 35 solid waste landfills in the State, the Department of Natural Resources and Environmental Control is spreading the inventory out over a 5-year period. The State evaluated only two facilities for the open dump-inventory as of September 30, 1980, and both were classified as open dumps. Between 1981 and 1984, the remaining facilities will be evaluated according to the following schedule: 6 in 1981, 10 in 1982, 8 in 1983, and 9 in 1984. The State's approach is to collect data on the facilities and then rank them as to which should be evaluated first.

Louisiana--Louisiana was the only State we visited that contracted to have the inventory performed. This inventory and evaluation took place during the period July through September 1980 and identified 1,750 facilities as open dumps and 1 as a sanitary landfill. However, the names of only 41 facilities were submitted for publication in the Federal Register, even though EPA inventory forms were completed on each facility. State officials told us that they reported only a few facilities because EPA advised them to report no more than they would be readily able to enforce compliance schedules for upgrading or closing.

Michigan--The Resource Recovery Division, Michigan Department of Natural Resources, evaluated 225 of the estimated 1,500 general refuse facilities. Of these, 131 were classified as open dumps, 83 as indeterminate, and 11 were in compliance with the EPA criteria. Emphasis was placed on inventorying facilities which had known environmental problems and where enforcement action to close or upgrade a facility had already been initiated.

Minnesota--Minnesota evaluated 1,268 disposal facilities for the open-dump inventory. Of these, 444 were inactive facilities that were considered properly closed and 51 were classified as sanitary landfills. An additional 150 facilities were classified as indeterminate because data (usually related to ground water or gas migration) was missing. The remaining 623 were classified as open dumps and ranked according to their degree of pollution potential. However, only the 84 facilities considered to have the highest pollution potential were reported to the Bureau of the Census for inclusion in the open-dump inventory. Therefore, 539 facilities, classified as open dumps, were not included on the inventory. Minnesota considers its inventory to be essentially completed.

Nevada--The Nevada Department of Conservation and Natural Resources evaluated all of Nevada's 120 municipal solid waste disposal facilities. Of these, 57 were classified as open dumps for the inventory. Approximately 50 nonhazardous industrial and mining waste disposal facilities remain to be evaluated.

New Mexico--Did not participate in the inventory.

Oklahoma--The Industrial and Solid Waste Division, Oklahoma Department of Health, evaluated 32 of the 230 known solid waste disposal facilities. All 32 facilities were classified as open dumps. The facilities were selected for evaluation based on their potential for affecting public health and most are located within the standard metropolitan statistical areas--Tulsa and Oklahoma County areas.

Pennsylvania--The Bureau of Solid Waste Management, Pennsylvania Department of Environmental Resources, evaluated 70 of the 3,400 estimated solid waste disposal facilities in the State. Of these, 35 were classified as sanitary landfills, 25 as open dumps, and the remaining 10 were not classified. Pennsylvania estimates it will take 5 years to complete the inventory.

Texas--In Texas the open-dump inventory is being conducted by two State agencies. The Department of Health evaluates and classifies municipal facilities and the Department of Water Resources is responsible for all nonhazardous industrial solid waste facilities. The Department of Health inspected 126 of the 1,155 municipal solid waste disposal facilities. Of these, 71 were classified as sanitary landfills, 41 were not classified due to incomplete review, 10 had not yet been reviewed, and 4 were classified as open dumps. Factors used in determining which facilities would be inventoried included (1) population served, (2) type of waste received, (3) location of facility, (4) location in relation to aquifers, (5) safety, (6) annual rainfall, and (7) life expectancy of the facility. The inventory is being spread out over a 4-year period. The Department of Water Resources inspected 11 of the approximately 210 nonhazardous industrial solid waste disposal facilities. Of these, six were classified as sanitary landfills, four were not classified pending the results of water or gas monitoring, and one was classified as an open dump. The remaining facilities will be evaluated at the rate of two a month.

To identify which facilities were open dumps and which should have been listed in the inventory, the States should have evaluated the entire universe of disposal facilities to determine which failed to meet the standards. EPA encouraged the States to evaluate each facility against all criteria elements, particularly those that were expected to be upgraded. However, the EPA guidance manual provided that

"\* \* \* EPA will publish as the 'Open Dump Inventory' a list of all facilities which the States have found to fail any one or more of the Criteria."

OPEN-DUMP INVENTORY PUBLISHED  
IN THE FEDERAL REGISTER

The open-dump inventory was published in the Federal Register on May 29, 1981. It listed 1,209 open dumps, by State, as shown on page 21.

<u>State</u>	<u>Total open dumps reported</u>
Alabama	5
Alaska	13
American Samoa	6
Arizona	36
Arkansas	31
California	30
Colorado	19
Connecticut	17
Delaware	2
District of Columbia	0
Florida	18
Georgia	7
Guam	3
Hawaii	1
Idaho	45
Illinois	14
Indiana	10
Iowa	4
Kansas	2
Kentucky	11
Louisiana	41
Maine	24
Maryland	2
Massachusetts	81
Michigan	131
Minnesota	84
Mississippi	160
Missouri	2
Montana	17
Nebraska	6
Nevada	57
New Hampshire	29
New Jersey	5
New Mexico	(a)
New York	21
North Carolina	10
North Dakota	6
Northern Marianas	3
Ohio	31
Oklahoma	32
Oregon	31
Pennsylvania	25
Puerto Rico	34
Rhode Island	6
South Carolina	2
South Dakota	5
Tennessee	2
Texas	5
Utah	2
Vermont	6
Virginia	2
Virgin Islands	9
Washington	31
West Virginia	25
Wisconsin	6
Wyoming	2
Total	<u>1,209</u>

a/New Mexico is not participating in the subtitle D program.

The inventory also listed, by State, the number of facilities violating each of the specific criteria elements. The nationwide totals follow.

<u>Criteria</u>	<u>Number of facilities violating criteria (note a)</u>
Flood plains	96
Endangered species	1
Surface water	342
Ground water	80
Application to food-chain cropland	1
Disease	897
Air	501
Safety	
Gases	48
Fires	708
Bird/aircraft hazard	22
Access	580

a/Individual criteria elements cannot be added together since a single facility may violate one or more of the elements.

MANY FACILITIES NOT MEETING  
THE CRITERIA ARE NOT LISTED IN  
THE INVENTORY

During the review we visited 193 facilities in 11 States and found that many did not meet EPA's criteria for a sanitary landfill and were not listed on the open-dump inventory.

Of the 193 facilities we visited, 94 had been evaluated for the open-dump inventory and 99 had not been evaluated. Of the 99 facilities that had not been evaluated, State solid waste officials told us that according to EPA's criteria, 76 would be classified as open dumps. Of the 94 facilities that were evaluated by the States for the open-dump inventory, only 44 were listed as open dumps. However, when we visited these same 94 facilities with State solid waste officials, the officials told us that 73 would be classified as open dumps based on EPA's criteria.

State solid waste officials offered various reasons concerning why so many more facilities would be classified as open dumps than those actually reported for the inventory. The reasons included at the time of the State's original visit to the facility no problem was found, thus resulting in a classification as a sanitary landfill. Also, the original classification was indeterminate, but at the time we visited the facility, it would have been classified as an open dump.

Discussed below are examples of the facilities we visited that appeared to be open dumps but were not listed on the open-dump inventory.

California facility--This facility is a 583-acre site located in Los Angeles County. It accepts hazardous waste which is mixed with municipal garbage in a 4:1 ratio. This facility was not evaluated for the open-dump inventory for the fiscal year ending September 30, 1980, and therefore is not listed on the current inventory. However, it was subsequently evaluated by the State on December 18, 1980, and classified as an open dump for failing to comply with the criteria for surface water, ground water, air, gases, and access.

Delaware facility--In 1972 the local county public works department confirmed that leachate from this facility had contaminated a nearby well. Leachate was found in the underlying, confined aquifer ground water. This contaminated ground water is moving toward two high-capacity drinking water wells. If these wells are contaminated, it will result in the loss of the most productive aquifer in Delaware. This facility was not evaluated for the open-dump inventory and therefore is not listed.

Nevada facility--At this facility garbage was being pushed over the side of a hill. The ravine at the bottom was covered with debris and tires that had apparently washed from the facility. At the time of our visit, an underground fire was burning. The facility did not appear to comply with the EPA criteria concerning surface water, disease, air, fires, and access. This facility had been inspected previously by Nevada's Department of Conservation and Natural Resources and classified as a sanitary landfill.

Texas facility--This 10-acre facility was not evaluated for the fiscal year 1980 open-dump inventory. At the time of our visit, uncovered garbage was being burned. Also, we observed several hogs eating the garbage. This facility did not appear to comply with the criteria regarding disease, air, fires, and access.

Texas facility--When we visited this facility, uncovered garbage was being burned in an open pit. We also were told by State health officials that this facility was 1 of about 20



problem dumps that had been referred to the State attorney general for litigation. This facility, as well as the others that are pending litigation, is not listed on the open-dump inventory.

The table on page 25 provides statistics regarding the open-dumping problems in the 11 States we visited.

Statistics on Disposal Facilities in the 11 States  
GAO visited

	State estimate of the number of disposal facilities in the State	Number of facilities evaluated by the States for the ODI (note a)	Number of facilities listed on the ODI	Facilities GAO visited Evaluated by State for ODI	Not evaluated by State for ODI	Number of facilities GAO visited that did not comply Listed on ODI	Not listed on ODI
Arkansas	314	31	31	5	13	5	10
California	600	159	30	2	8	0	6
Delaware	35	2	2	2	8	2	7
Louisiana	1,751	1,751	41	23	2	9	15
Michigan	1,500	225	131	5	5	1	5
Minnesota	1,335	1,268	84	17	1	11	2
Nevada	170	120	57	16	0	4	10
New Mexico	280	(b)	(b)	(b)	7	(b)	6
Oklahoma	230	32	32	11	11	9	10
Pennsylvania	3,400	70	25	5	6	3	5
Texas	<u>1,365</u>	<u>137</u>	<u>5</u>	<u>8</u>	<u>38</u>	<u>0</u>	<u>29</u>
Total	<u>10,980</u>	<u>3,795</u>	<u>438</u>	<u>94</u>	<u>99</u>	<u>44</u>	<u>105</u>
					<u>193</u>		<u>149</u>

a/Open-dump inventory.

b/New Mexico did not participate in the subtitle D program.

As noted previously, States are aware of many facilities that do not meet the criteria for sanitary landfills but are not included in the open-dump inventory. For example, only 41 of the 1,750 facilities classified as open dumps in Louisiana are listed on the inventory. Louisiana solid waste officials stated that EPA advised them to report only those facilities that they would be readily able to enforce compliance schedules for upgrading or closing. As a result, Louisiana only reported 41 open dumps.

The Director, Solid Waste Management Division, Texas Department of Health, told us that practically all of the 452 municipal facilities serving less than 1,500 persons and many of the 200 municipal facilities serving less than 5,000 persons would be classified as open dumps because open burning is routinely permitted. Furthermore, Minnesota reported only 84 disposal facilities it considered the worst of its 623 open dumps. Also, at least 30 of the disposal facilities not reported have possible surface and ground water contamination problems; 2 were even cited for arsenic contamination.

#### IT IS NOT TOO LATE TO DEVELOP A BETTER INVENTORY OF OPEN DUMPS

We believe the States included in our review currently have or could readily obtain information to identify many disposal facilities that are open dumps. For the open-dump inventory, a facility should be classified as an open dump if it fails to comply with any one of EPA's criteria elements. (See pp. 16 and 17.) As shown by the number of different inventory approaches that were used, the States already know of many facilities that fail to comply with one or more aspects of the criteria but were not reported. For example, Louisiana is aware of more than 1,700 facilities that were not reported, Texas probably more than 500, and Minnesota at least 539 more. Also, some of the States already have current evaluation and inspection reports that would indicate that the operations conducted at the facility would cause the classification to be that of an open dump due to surface water contamination, disease vector problems from inadequate cover, open burning, uncontrolled access, etc.

We believe that EPA could ask the States to provide to EPA and the Bureau of the Census available information on all facilities not meeting the criteria for a sanitary landfill. Although such a listing would not be complete, it would provide a better picture of open dumping of solid waste than the current inventory and a much better basis for ranking State enforcement activities as intended by subtitle D.

#### CONCLUSIONS

The existing open-dump inventory is incomplete since it does not provide the Congress and the public an overview of the open-dump problem in the Nation and does not provide the

States the necessary information for determining the highest priority facilities for closing or upgrading. The inventory is incomplete because many of the States' disposal facilities classified as open dumps were not reported. For example, Louisiana, based on advice from EPA officials, did not report the names of 1,709 facilities classified as open dumps. This number alone represents about 41 percent more than the 1,209 open dumps reported by all the States. Also, the inventory does not show the Nation's open-dumping problem because in some States all the disposal facilities were evaluated, while in other States as few as two facilities were evaluated. This would tend to indicate that some States have problems that are not shared by other States. In addition to the facilities that were evaluated and classified as open dumps, some States are readily aware of many more facilities that have not been evaluated for the inventory.

Without all States using a consistent inventory approach and reporting facilities that fail to meet any one of EPA's criteria for classifying disposal facilities, the Congress and the public are not provided an overview of the Nation's open-dumping problem. Also, due to the so-called time-phasing of the inventory, the States do not have the basic information on all facilities necessary for taking enforcement actions regarding the upgrading or closing of the highest priority facilities classified as open dumps.

#### RECOMMENDATIONS TO THE ADMINISTRATOR, EPA

We recommend that the Administrator encourage the States to submit the names of all disposal facilities not meeting one or more of EPA's criteria for classifying disposal facilities. After receiving the data from the States, we further recommend that the Administrator publish an inventory of all facilities which do not meet EPA's criteria.

#### OFFICE OF SOLID WASTE COMMENTS AND OUR EVALUATION

Officials from EPA's Office of Solid Waste, including the Acting Deputy Assistant Administrator and the Director, State Programs and Resource Recovery Division, agreed that the open dump inventory is incomplete since it does not identify all open dumps in the Nation. They emphasized that EPA has no legislative authority to conduct the inventory and that the results of the inventory are highly dependent on the manner in which the States approach it. They agreed that some States did much more than others.

The officials agreed with the overall thrust of the recommendation but believe that the voluntary nature of the subtitle D program precludes EPA from requiring the States to take action.

EPA, in their opinion, can only encourage State actions. We agree and have changed the wording from require to encourage. The officials also stated that Louisiana, Texas, and Minnesota will be among the first States contacted.

## CHAPTER 4

### FUNDING REDUCTIONS MAY IMPACT

#### SOLID WASTE PROGRAMS

EPA's proposed fiscal year 1982 budget provides no Federal financial assistance to States for solid waste management. This is an \$8 million decrease from the previous year and results from an accelerated phaseout of Federal financial assistance under subtitle D. Previous budgets indicated that this phase-out was not to occur until fiscal year 1984.

States generally believe that the elimination of Federal funding for subtitle D activities will have adverse impacts on State solid waste programs. Although States should have been examining alternative funding sources to assure an adequate and self-supporting solid waste management program for the future, EPA could do more to aid the States' efforts.

#### PHASEOUT OF FEDERAL FUNDING PLANNED SINCE 1979

Federal funding for State subtitle D activities was not envisioned to continue indefinitely. The Congress intended that the States and localities retain overall responsibility for planning and operating solid waste management programs. The Federal Government's role, through EPA, was to aid State and regional initiatives in formulating and implementing of State solid waste management plans through guidelines and financial assistance.

#### Federal funding has aided States for 4 years

RCRA authorized funding, beginning in fiscal year 1978, for financial assistance to States and local, regional, and interstate authorities for developing and implementing solid waste management plans. The amounts authorized have been substantially higher than those appropriated. For example, RCRA authorized \$125 million for the 5-year period ending with fiscal year 1982, as follows.

<u>Fiscal</u> <u>year</u>	<u>Amount authorized by RCRA</u>  (millions)
1978	\$ 30
1979	40
1980	20
1981	15
1982	<u>20</u>
Total	<u>\$125</u>

Although funding was authorized through fiscal year 1982, EPA's proposed budget includes no funding for fiscal year 1982. Through March 31, 1981, EPA had awarded \$47.8 million in grants to States for solid waste management activities. The following table shows the total funds awarded each year.

<u>Fiscal</u> <u>year</u>	<u>Grants</u> <u>awarded</u>  (000)
1978	\$14,385
1979	11,570
1980	14,744
1981 (thru March 1981)	<u>7,115</u>
Total	<u>\$47,814</u>

Since \$8 million was appropriated for fiscal year 1981, EPA has \$885,000 in remaining fiscal year 1981 funds for grants to the States. The table on page 31 shows the grant amounts awarded to each State and territory (based on population) since the program's inception.

Grants Awarded to States  
for Solid Waste Management Activities (note a)

<u>State</u>	Grant funds awarded during period Oct. 1, 1977 through <u>Mar. 31, 1981</u>  (000)
Alabama	876
Alaska	292
American Samoa	170
Arizona	557
Arkansas	520
California	4,336
Colorado	764
Connecticut	742
Delaware	218
District of Columbia	214
Florida	1,397
Georgia	1,007
Guam	241
Hawaii	219
Idaho	333
Illinois	2,958
Indiana	1,056
Iowa	718
Kansas	451
Kentucky	907
Louisiana	797
Maine	408
Maryland	896
Massachusetts	1,077
Michigan	1,922
Minnesota	732
Mississippi	486
Missouri	970
Montana	202
Nebraska	343
Nevada	258
New Hampshire	238
New Jersey	1,522
New Mexico	127
New York	4,080
North Carolina	1,116
North Dakota	238
Northern Marianas	166
Ohio	1,653
Oklahoma	557
Oregon	457
Pennsylvania	2,500
Puerto Rico	594
Rhode Island	238
South Carolina	679
South Dakota	311
Tennessee	861
Texas	2,140
Utah	357
Vermont	238
Virginia	1,209
Virgin Islands	236
Washington	496
West Virginia	398
Wisconsin	1,054
Wyoming	280
Total	<u>\$47,814</u>

a/Award totals derived from selected EPA publications entitled  
"Activities of the Grants Assistance Programs."



The grant funds, according to EPA's proposed fiscal year 1982 budget, have been used to support State solid waste activities under RCRA, including (1) inventorying all solid waste land disposal sites, (2) completing State solid waste management plans, and (3) implementing State regulatory programs for managing nonhazardous waste. For example, in fiscal year 1980, States

- continued to develop solid waste management plans consistent with subtitle D requirements;
- established legislative and regulatory authority, where it had not previously existed, necessary to oversee and manage nonhazardous waste; and
- strengthened their capability to assume solid waste management responsibilities consistent with RCRA.

Among other things, funds were used to hire engineers and geologists; to pay for travel expenses; and to purchase gas-monitoring equipment.

A major activity performed by the States in fiscal year 1980 was the initial inventory of solid waste land disposal sites. States evaluated the sites against SWDA's section 4004 criteria for classifying solid waste disposal facilities. The strategy used by the States in site evaluation was to identify priority sites and those sites most likely to cause damage to the environment or public health. Also in fiscal year 1980

"The States, with EPA assistance, continued to work to identify and develop long-term financial alternatives to support the solid waste management program. The strategy most suitable for a specific State should be implemented upon phase-out of Federal financial assistance."

#### No Federal funding budgeted for fiscal year 1982

Although RCRA authorized funding for States and local, regional, and interstate authorities' solid waste management activities through fiscal year 1982, EPA's proposed fiscal year 1982 budget includes no Federal financial assistance to support such activities. The fiscal year 1982 budget proposed by President Carter included \$6 million for these activities, but funding was eliminated in the revised budget the Reagan administration submitted as part of its budget-reducing measures.

According to EPA's revised 1982 budget:

"\* \* \* There will be no Federal funds for States' implementation of their comprehensive solid waste management plans; to support the completion and revision of State plans not approved during 1981;

or for States to continue their inventory of solid waste land disposal sites using the Criteria for Classifying Solid Waste Disposal Facilities.\* \* \* in 1982 EPA expects the States to be self-reliant in funding implementation of their Solid Waste Management Plans."

The lack of Federal funding for fiscal year 1982 was also emphasized in a May 18, 1981, memorandum on guidance for using remaining fiscal year 1981 RCRA subtitle D resources from EPA's Acting Deputy Assistant Administrator for Solid Waste to EPA regional administrators. The Acting Deputy Assistant Administrator stated:

"There are no Subtitle D State grant funds for FY 82 and no Headquarters positions to support Subtitle D State activities.\* \* \*Thus, the FY 82 budget leaves the Agency with the remainder of FY 81 to wind up the essence of its efforts in the areas of State grant fund activities; i.e., the approval of State plans and publication of the open dump inventory."

The elimination of grant funds occurred 3 years earlier than originally expected. EPA alerted the State solid waste directors in a January 20, 1979, memorandum from the Assistant Administrator for Water and Waste Management that Federal financial assistance would be phased out over a 5-year period (fiscal years 1980-84). EPA was hopeful that the phaseout period would give the States time to develop alternative funding sources, such as user charges. EPA also indicated in the memorandum that it planned to encourage the States to explore the user charge approach for funding solid waste activities. However, the phaseout period was accelerated by the Reagan administration, which expects the State programs to be self-supporting and self-reliant beginning in fiscal year 1982.

States are responsible for carrying out subtitle D's objectives

Subtitle D was never intended to be federally managed or operated. The Federal role was one of a partnership with the States to help and aid them in properly managing solid waste disposal. Federal funds were provided to establish guidelines and frameworks within which the State programs could be designed and developed. Once this was accomplished, the Congress intended that the States and localities would retain overall responsibility for planning and operating solid waste management programs. As such, the States must have an adequate funding source to assure that their solid waste management programs are properly carried out. States have had ample time to seek non-Federal sources of funds to maintain these programs. In many cases, the States appear to be unprepared for the phaseout of Federal funds. As a result, they have projected that State solid waste activities will suffer.

STATES LACK FUNDING TO SUPPORT  
SOLID WASTE PROGRAMS

The States included in our review and two State associations reflecting the views of all States believed that the elimination of Federal financial assistance for State solid waste programs will have adverse impacts on the programs. They believed that the open-dump inventory effort will be curtailed or ended and other State solid waste management activities will be reduced.

States predict adverse impacts  
when Federal funding is eliminated

At each of the 11 States included in this review, we attempted to determine, through talks with appropriate State officials, how the phaseout of subtitle D funds will affect selected aspects of the State solid waste programs. With the exception of Texas and New Mexico, which is not participating in the subtitle D program, the States predicted negative impacts on the following five subtitle D activities

- training provided by the State,
- implementing the State plan,
- continuing the open-dump inventory,
- closing or upgrading of open dumps, and
- prohibiting new open dumps.

For example, in the training area, the responses ranged from Texas indicating no effect to Nevada stating that less training would be provided and Pennsylvania stating that training would cease. Regarding implementation of State plans, Texas again indicated no effect, whereas States such as California and Delaware predicted that implementation will cease. Similar responses were provided for the open-dump inventory. Texas stated that it would complete the inventory using State funds, but Louisiana predicted that its inventory effort would cease. All States, except New Mexico, believed that some negative impacts will accrue to the closing or upgrading of open-dump areas. In prohibiting new open dumps, Michigan stated that it would be more lax while Oklahoma will revert to the program in effect before 1976--no regulation.

State associations believe continued  
Federal funding is needed

Two State associations--the National Governors' Association, Subcommittee on the Environment, and the Association of State and Territorial Solid Waste Management Officials, Committee on Solid Waste Management Implementation--have expressed concern over reduced subtitle D funding. Both believed that the States are

heavily dependent upon continued Federal funding and that without it well-conceived programs will tend to disintegrate because the States cannot carry the increased financial burden at this time.

The Director, Division of Solid Waste, New York Department of Environmental Conservation, prepared a position paper on March 17, 1980, entitled "Future Funding of State Solid Waste Programs Under the Resource Conservation and Recovery Act--Public Law 94-580" for the National Governors' Association, Committee on Natural Resources and Environmental Management, Subcommittee on the Environment. The conclusions and recommendations in the position paper were endorsed by the Subcommittee on the Environment. The position paper was prepared because

"At a time when states are grappling with mounting solid waste problems, it is reported that funding under the Resource Conservation and Recovery Act (RCRA) will be greatly reduced or even phased out during the next three years."

The association decided to poll the States to assess what the individual as well as collective results would be if RCRA funding was phased out over the next 3 years.

As a result of the national poll of State solid waste program officials, the following conclusions were drawn:

- The majority of States are heavily dependent upon RCRA funding for continued operation of State solid waste management programs.
- There is an inherent resistance and consequently, little likelihood that States could establish an EPA-recommended user fee system because of strong home rule philosophies that prevail throughout the United States.
- Should Federal funding be phased out or greatly curtailed over the next 2 to 3 years, the country as a whole will be unable to meet the congressional intent of RCRA.
- The States cannot bear the cost of administering federally mandated and encouraged programs without substantial amounts of Federal financial and technical assistance.
- The open-dump inventory has become more costly and will require more time for completion. The inventory may even be eliminated for lack of needed staff and financial support.
- Most States will be unable to implement the solid waste management plans.

- Some States will be forced to abandon RCRA programs and responsibilities while others will see programs suffer and fail.

The position paper recommended that the Congress provide sufficient RCRA funding to the States to permit them to carry out the intent of RCRA. The paper also recommended that the Congress provide the States with the additional financial assistance needed to implement new solid waste management, resource recovery, and resource conservation systems.

Similar concerns were raised in a January 1981 report on "The Implementation of State Solid Waste Management Plans" by the Committee on Solid Waste Management Implementation of the Association of State and Territorial Solid Waste Management Officials. The report concluded that:

- Reduced funding for subtitle D activities is being viewed as a reduced emphasis by EPA upon a major portion of the overall solid waste management program.
- The impact will be felt at the State and local government levels; well-conceived programs will tend to disintegrate because of depleted funding support.
- States cannot carry the increased financial burden of phased withdrawal of Federal support at this time.
- Legislators view the establishment of disposal fees to support State programs with great disdain, particularly in States where a strong home rule philosophy prevails.
- Reduced funding for subtitle D activities is particularly disastrous to States that operate on biennium budgets, where the State legislative bodies only convene every 2 years.
- Reduction of subtitle D funding at this time will result in a serious loss of momentum that will abort much of the progress made during the past decade.

The report recommended that funding for subtitle D activities be increased rather than decreased because it is impossible to successfully implement an overall solid waste program without Federal support. Further, the report recommended that increased funding of subtitle D activities continue through fiscal year 1986, and if it were then phased out over an appropriate time frame, it would result in far less devastation of State programs.

It is important to also note that both the March 17, 1980, position paper and the January 1981 report were prepared at a time when EPA was still planning to phaseout Federal funding during the 1980-84 fiscal year period. Needless to say both studies would be much more critical in the current budget climate where no Federal funding is planned for fiscal year 1982.

## ALTERNATIVE FUNDING SOURCES ARE NEEDED TO SUPPORT STATE PROGRAMS

The States included in our review and two State associations reflecting the views of all States indicated that they lack adequate, long-term financial support to effectively and efficiently operate State solid waste programs. In the past the States relied quite heavily on Federal funds for this effort. Beginning in fiscal year 1982 Federal funds will no longer be provided. The States will be expected to provide all funding support through State-generated funds. In this time of budget austerity, it appears unlikely, however, that State legislatures will be willing to fund solid waste programs from general State revenues. States will be required to find new, alternative funding sources if they hope to carry out the objectives of subtitle D. User charges and fee systems are alternatives offering potential solutions.

The need for alternative funding sources to support RCRA programs is not new. In a January 1979 report, we commented on the need for alternative sources, such as fee systems, to support the provisions of SWDA subtitle C--Hazardous Waste. Furthermore, EPA, since January 1979, has encouraged the States to explore the user charge approach as an alternative funding source for State solid waste programs. The current administration is also recommending various user charge systems to support other Federal programs. EPA can aid State efforts to develop alternative funding sources by examining these issues from the national perspective.

### We endorsed the fee system concept

In our January 23, 1979, report entitled "Hazardous Waste Management Programs Will Not Be Effective: Greater Efforts Are Needed" (CED-79-14), we stated that at that time no long-term funding source was available for hazardous waste programs from the Federal, State, and local levels. We further stated that self-supporting programs which charge for waste disposal--such as fee systems--would provide an alternative source to supplement existing funds and a means of long-term program support. We believe that fee systems are also applicable to solid waste programs.

The fee system concept was adopted by two influential, policy-formulating organizations. The Cabinet-level Resource Conservation Committee stated that pollution costs should not be subsidized by taxpayers or those directly exposed to pollution; rather, those producing and consuming pollution-associated products should pay. Also, all member nations of the Organization for Economic Cooperation and Development, including the United States, have accepted this concept as a basic pollution control principle.

The Federal and State agency practice of collecting fees or taxes to pay for program costs is not a new concept. For example, for over two decades the Federal Highway Administration has administered various excise taxes to pay for Federal highway construction programs. Also, the Department of the Interior has administered sporting arms and fishing equipment taxes to support wildlife conservation programs. A 1974 EPA study showed that State pollution control agencies have levied fees for over 20 years to cover certain program costs. The study pointed out that State and local air and water pollution control agencies in Illinois, Ohio, Arizona, California, and Michigan have charged fees to defray program costs. For example, an Arizona air pollution agency was expected to raise two-thirds of its revenues through fees. Most agencies levied fees as a charge for services or privileges received by an individual. Michigan air and water agencies, however, charged fees to cover general surveillance activities costs.

During this earlier review, the State and EPA officials with whom we discussed a fee system supported the concept. In addition, several State and EPA officials told us that a fee system could provide sufficient long-term funding to underwrite hazardous waste program costs, may provide an economic incentive for producers and consumers to alter their production and purchasing practices, and may even reduce the use of hazardous waste-producing products. Some officials also believed that an increase in disposal costs would contribute to the use of hazardous waste reduction techniques, waste treatment, and the exchange of wastes among companies.

Although most State officials interviewed accepted the fee system concept, some reported that they had not considered implementing a fee system to finance their programs. Other State officials expressed the following concerns, which may still exist, about implementing a fee system.

- Some State agencies are expressly prohibited by State statute from charging fees or cannot levy fees unless specifically authorized by State law.
- Resistance from disposer groups required to pay fees could be politically difficult to overcome.
- A fee plus normal disposal charges may increase the amount of illegal hazardous waste dumping taking place.
- Such a system may be difficult or costly to administer.
- If a State implements a fee system, it may cause wastes to be exported to the States that do not have fee systems or that have lower disposal charges.
- States do not want the burden of establishing a fee system until their programs are fully developed, generally, within 2 to 5 years.

--State legislatures may use the revenues generated by a fee system for other programs.

In California, however, many of the above concerns were not a problem or were not expected to cause problems. In 1972, the California Legislature authorized a fee system and established a special account for fees collected. The funds generated were earmarked solely for hazardous waste management and enforcement activities. State officials told us that without strong enforcement, illegal hazardous waste disposal would probably increase; however, the fee rate is expected to be sufficient to provide for increased enforcement and surveillance activities. These officials stated that the fee charged was minor--averaging about 5 percent of the total costs incurred when a hazardous waste producer disposes of the waste. In addition, they noted that the administrative costs of the California system were minimal.

EPA has recommended  
user charges or fees

EPA has recommended since January 1979 that the States need to develop alternative funding sources to support the State solid waste programs. EPA believed that user charges offered a sound long-term approach to the funding problem. In budget and planning documents developed since then, EPA has continued to emphasize the need for alternative funding sources, such as user charges or fees.

In a January 20, 1979, memorandum to State solid waste directors, EPA's Assistant Administrator for Water and Waste Management explained the future financial support for RCRA programs "as reflected in the President's FY 1980 budget." he stated:

"The budget also indicates that funding of Subtitle D will be phased out over a five year period. This five year program will give the States time to develop alternative funding sources. Some State solid waste programs already support themselves by various user charges, and we believe this offers a sound long-term approach. EPA plans to encourage States to explore the user charge approach and will initiate a program of technical support to States seeking to develop a funding approach based on user charges."

EPA's budget for fiscal years 1981 and proposed for 1982 also emphasized the need for alternative funding. The 1981 budget, in describing the 1981 plan, provided that "EPA will also continue to work with the States in developing user-charges as a means of financing activities within their solid waste management program." The proposed 1982 budget stated that the 5-year phaseout of Federal funding had been accelerated and "in 1982 EPA expects the States to be self-reliant in funding implementation of their Solid Waste Management Plans."



In August 1979 EPA released a study entitled "User Fees: A State Regulation Survey." The survey was undertaken to provide background information to the States and EPA regional offices on the current status of user fees in each State and the types of user fee practices that are being used nationwide. The survey concluded that six States--New Jersey, Virgin Islands, Michigan, Ohio, Wisconsin, and Washington--charge substantial permit (user) fees for both the construction and operation of solid waste management facilities. The survey also concluded that at least 12 States--Rhode Island, New Jersey, Virgin Islands, Maryland, Tennessee, Alabama, Wisconsin, Ohio, Michigan, Kansas, California, and Oregon--partially recover the costs associated with the review and surveillance of hazardous waste management activities through user fees. Michigan, in addition to site permit fees, required license fees and charged fees for preparing environmental impact statements. The survey also added that some States have fees assessed on the basis of volume or tonnage: solid waste (Massachusetts and California) and hazardous waste (Maryland, Tennessee, Wisconsin, Ohio, Louisiana, Kansas, California, and Oregon).

In addition to the user fee survey, EPA headquarters published case studies on solid waste user fees in the States of Wisconsin and New Jersey in November 1979 and January 1980, respectively. These studies described the user fee program and provided some general guidance on developing and implementing State solid waste user fees. It was envisioned that these case studies would assist States and EPA regional offices in examining the efficacy of developing solid waste user fee sources in other States.

States should have been  
developing alternative  
funding sources

According to the May 28, 1980, EPA headquarters guidance for developing State work programs for fiscal year 1981 under RCRA, each individual State work program must address alternative funding schemes to ensure that the State program can compensate for the expected phaseout of Federal funding by fiscal year 1984. The guidance document outlined three specific tasks that were to be addressed:

1. Provide a summary of the State's strategy in searching for alternative funding sources for the State program.
2. Briefly discuss the status of fiscal year 1980 State activities to develop alternative funding sources.
3. Describe the alternative approaches that will be considered in fiscal year 1981; for example, increasing State general revenues; user fees, including facility permit and licensing and hauler registration; bottle bills; product charges; special taxes or assessments, etc.

EPA headquarters officials did not know whether the individual State work programs actually addressed the three items. According to EPA's Chief, State Program Branch, EPA headquarters is not provided a copy of the State work programs because such documents are maintained at the regional offices. EPA regional office solid waste officials, however, had little or no documentation in their files to show how the States complied with the three tasks. These officials could only provide general statements, such as the following, about alternative funding being pursued in the 11 States included in our review.

<u>State</u>	<u>EPA regional office statements concerning State alternative funding efforts</u>
Texas	The State health department plans to encourage more sub-State planning for solid waste management; amend the State Solid Waste Management Act to authorize funding of local resource recovery projects, subject to voter approval, by means of bonds secured by general revenues, project revenues, or user fees. Legislation to accomplish this has been introduced.
Oklahoma	The State will make up loss of Federal funds with State funds. The State will not divulge the anticipated source of such funding.
New Mexico	The State is not participating in the subtitle D program.
Arkansas	The State has no plans for providing alternative funding. For example, the adopted State plan submitted to EPA for approval stated that "elected officials fear the wrath of the voter if they charge or increase collection fees or if they raise taxes."
Louisiana	The State intends to levy fees against private entities but not against local governmental entities. Legislation to accomplish this has not been introduced.
Michigan	EPA regional officials did not comment on whether alternative funding was or was not being pursued because they did not ask the State to specifically address it in the work program.

Minnesota	EPA regional officials did not comment on whether alternative funding was or was not being pursued because they did not ask the State to specifically address it in the work program. The officials were aware, however, that the State currently has a user fee system, but the State can do very little to increase fees because of the existing political and financial climate.
Nevada	The State surveyed funding alternatives within the State and requested information on alternatives used in about 30 other States. Most alternatives were not viewed as feasible because each involved charging the public for waste disposal.
California	The State anticipates that it will be able to fund the program from general revenues.
Pennsylvania	The State anticipates that it will be able to fund the program if subtitle D funds are phased out. Legislation will be needed, however.
Delaware	The State does not want to charge the public for waste disposal. The State program will probably become inactive.

State associations not optimistic  
about alternate funding methods

Two State associations have stated that there is a low likelihood for developing an alternate funding source to replace the loss of Federal funding. For example, the Association of State and Territorial Solid Waste Management Officials, in a January 1981 report, stated that permit fees cannot support the technical assistance and enforcement portions of the overall State solid waste programs. Although consideration has been given to establishing a disposal fee to support State programs, the report indicated that such fees have been generally viewed with great disdain by legislators, particularly in States where a strong home rule philosophy prevails. To support this contention, the report cited the example of the Minnesota Pollution Control Agency receiving authority to impose a disposal tax. It created such a controversy that the taxing authority was repealed during the next legislative session.

The same types of concerns were raised in a March 17, 1980, study prepared for the National Governors' Association's Committee on Natural Resources and Environmental Management. The study concluded that there is an inherent resistance and, consequently, little likelihood that States could establish an EPA-recommended user fee system to provide continued funding for

solid waste management programs, because of strong home rule philosophies that prevail throughout the United States. Further, the study stated that some States have also indicated that the institution of a user fee may be prohibited by existing State or local laws. For example, Rhode Island stated that it "does not expect that legislation for a fee system could be introduced, let alone passed." Similarly, Michigan stated that "institution of a user fee is unlikely because of anticipated opposition from the State Legislature and local government."

Although both reports have indicated opposition to a user fee approach, it still remains a viable funding alternative if the legislative and home rule philosophy problems can be addressed.

User charge approach recommended  
by the administration for other  
Federal programs

On February 18, 1981, President Reagan released the report entitled "America's New Beginning: A Program for Economic Recovery" which he described as "\* \* \* the comprehensive package that I am proposing in order to achieve a full and vigorous recovery for our economy." Among the items proposed was the recovery of allocable costs with user fees. The President proposed user fees to eliminate the subsidies on inland waterways, recover half of the Coast Guard costs directly associated with activities that benefit users of boats and yachts, and fully finance the air traffic control system by reinstating and adequately funding the airport and airway trust fund. The report also stated that additional proposals will be developed to apply this principle on a more extensive scale. The following three examples, as shown in the President's report, describe the user fee concept:

"Eliminate inland waterway subsidies: The Administration will seek to eliminate the subsidy on inland waterways, beginning in 1983, by increasing taxes for barge fuel.\* \* \* Under this proposal, fuel taxes will increase from 6 cents per gallon to about 30 cents per gallon in 1983. This will cover the full amount that the Government spends on the operation and maintenance of the waterways.

"Boat and yacht user fees: Coast Guard operating expenses in 1982 will exceed \$1.3 billion. A substantial portion of its services--including licensing, inspection, vessel documentation, operation of aids to navigation, rescue and towing assistance, icebreaking, and water pollution monitoring and cleanup--are provided without charge.\* \* \* To remedy this unnecessary subsidy, legislation will be submitted for a graduated system of fees for Coast Guard services to be phased in over the next 4 years.

"Eliminating subsidies for airport and airway users: The actual users of the aviation system--commercial and general aviation--receive most of its benefits. Not requiring users to bear the full cost of their activities provides an unwarranted subsidy and encourages uneconomic use of the system. Passenger ticket taxes and general aviation fuel taxes sufficient to finance the entire cost of the air traffic control system will be proposed in lieu of a general revenue subsidy. (This subsidy was \$1.9 billion in 1980.)"

### CONCLUSIONS

Through March 31, 1981, EPA had awarded \$47.8 million in grants to the States for solid waste management activities. Such funding was to be phased out completely by fiscal year 1984. The current administration, however, has accelerated the phaseout period. At one time EPA was budgeting \$6 million for State grants in fiscal year 1982. The revised budget, however, has no Federal funding projected in fiscal year 1982.

The 11 States we visited and two State associations representing all the States have indicated a lack of adequate, long-term financial support to effectively and efficiently operate the State solid waste programs. They have predicted that adverse impacts will result in many solid waste areas, including, training, implementing the State solid waste management plan, continuing the open-dump inventory, closing or upgrading open dumps, and prohibiting new open dumps.

EPA has emphasized since January 1979 the need for States to develop alternative funding sources, such as user charges, to support the State programs once Federal funding is phased out. Although EPA has stressed the need for alternative funding sources, the States appear to be unprepared to replace the Federal funding. We believe that a need continues to exist for alternate sources of funding to make the State programs self-reliant and self-supporting.

In our earlier report on hazardous waste, we endorsed the use of a fee system concept; EPA has recommended user charges or fees; and the current administration has recommended the user charge approach for other Federal programs. The acceleration of the phaseout of Federal funding for the subtitle D program has highlighted the States' funding problem much earlier than originally anticipated. The States are now being forced to finally come to grips with the funding issue.

### RECOMMENDATION TO THE ADMINISTRATOR, EPA

We recommend that the Administrator provide to all State solid waste management agencies comprehensive reports on those States that the Administrator believes have developed

alternative sources of funding to the point that State solid waste management programs are considered self-reliant and self-supporting. Such reports can serve as guides to encourage all States to develop self-reliant and self-supporting solid waste management programs.

OFFICE OF SOLID WASTE  
COMMENTS AND OUR EVALUATION

Officials from EPA's Office of Solid Waste, including the Acting Deputy Assistant Administrator and the Director, State Programs and Resource Recovery Division, stated that the States do need alternative funding sources to replace the phased out Federal funding. In their opinion, few States presently have what they consider to be adequate alternative funding. The States must develop such funding to maintain viable State programs. Without alternative funding sources, the States are faced with the prospect of funding the program from general revenues or having no program.

The officials agreed to provide the State solid waste management agencies with reports on those States that have developed alternative funding sources. They believe that this can best be done by updating the August 1979 EPA study entitled "User Fees: A State Regulation Survey."